

A 2
ZF 219 S

UNCLASSIFIED (DOCUMENT SECTION)

THE SURGEON'S

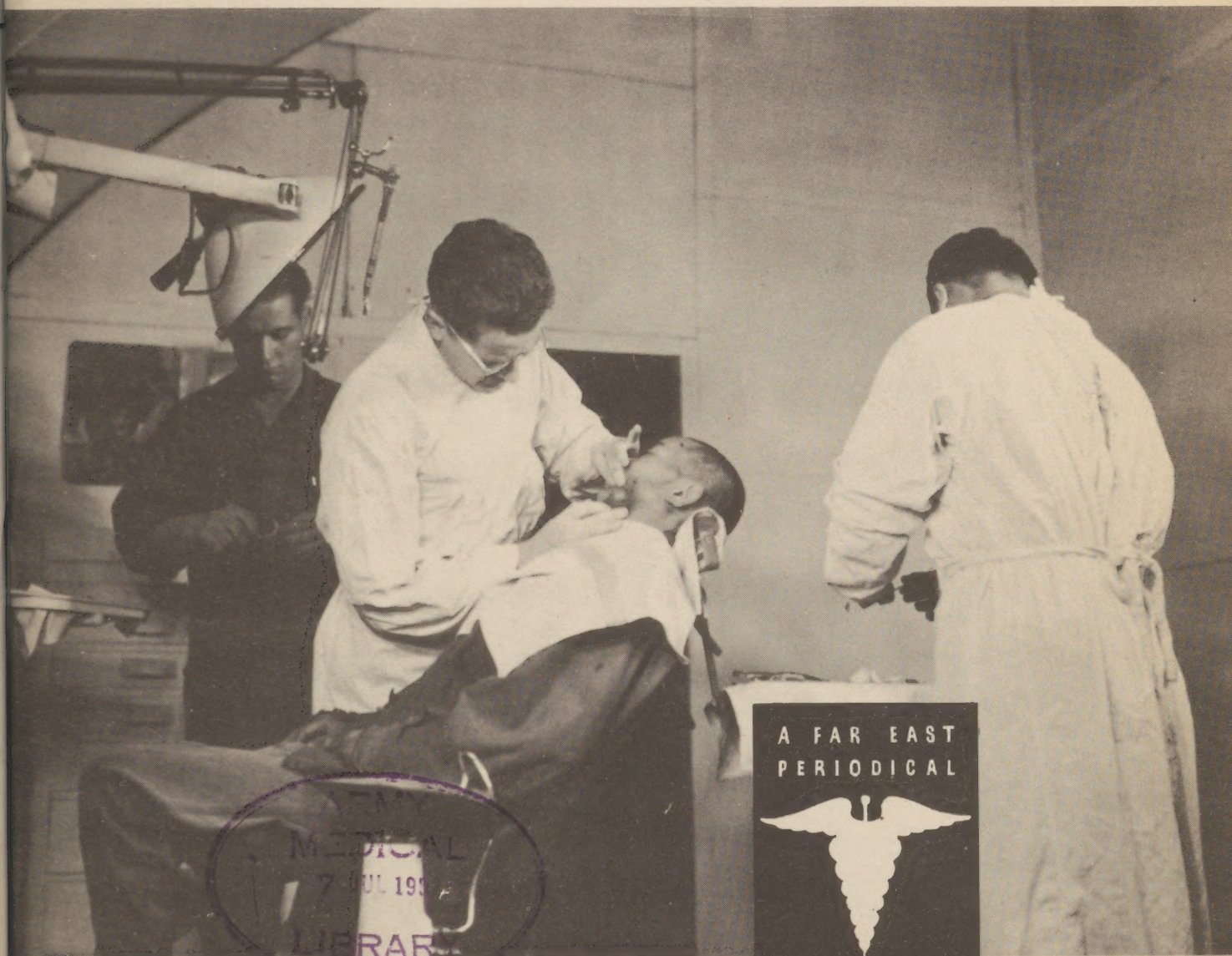
Circular Letter

CLASSIFICATION CHANGED
UNCLASSIFIED
AUTH: 1st Ind. Hq. USAFFE
DATE: 19 July 1954
SECURITY OFFICER:
Frank B. Rogers

MAY - 1952

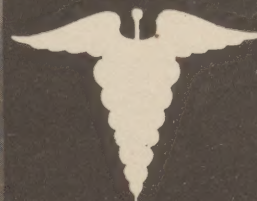
VOLUME - VII

NUMBER - 5



ARMY
MEDICAL
7 JUL 1954
LIBRARY

A FAR EAST
PERIODICAL



OF ARMY
MEDICAL SERVICES

APO 500

MEDICAL SECTION - HQ - FEC, AND UNC

UNCLASSIFIED

ROSTER OF OFFICER PERSONNEL ASSIGNED TO THE MEDICAL
SECTION, HEADQUARTERS, FAR EAST COMMAND, AS OF
31 MAY 1952

Major General William E. Shambora, MC
Chief Surgeon (26-6317)

Colonel Harold W. Ott, DC
Chief Dental Surgeon (26-6318)

Colonel Robert E. Selwyn, MSC
Executive Officer (26-6688)

Colonel Joe A. Bain, MC
Deputy Chief Surgeon (26-6415)

CONSULTANTS DIVISION

Colonel Oral B. Bolibaugh, MC
Chief Consultant (26-8207)

Colonel Charles L. Leedham, MC
Medical Consultant (26-6549)

Colonel Donald B. Peterson, MC
Psychiatric Consultant (26-6549)

Colonel Walter A. Matuska, MC
Surgical Consultant (26-6549)

PREVENTIVE MEDICINE DIVISION

Colonel Joseph H. McNinch, MC
Chief (26-8024)

Lt. Col. Raymond J. Karpen, MSC
Sanitary Engineer (26-8024)

Capt. Ralph M. Takami, MC
Medical Intelligence Officer
(26-8024)

Colonel Harry E. VanTuyt, VC
Chief Veterinarian (26-6318)

PLANS AND OPERATIONS DIVISION

Colonel William J. Moreland, MSC
Chief (26-6568)

Lt. Col. Harvey E. Archer, MSC
Chief, Operations Branch (26-6568)

Major Donald H. Behrens, MSC
Asst Chief, Operations Branch (26-7946)

Capt. Milton Cohen, MSC
Chief, Medical Records and Statistics
Branch (26-6491)

Capt. Charles A. Copeland, MSC
Chief, Publications and Editorial
Branch (26-7951)

2d Lt. Cecil E. Johnson, MSC
Chief, Physical Standards Branch
(26-6590)

PUBLIC HEALTH AND WELFARE DIVISION

Colonel Cecil S. Mollchen, MC
Chief (26-6982)

SUPPLY AND FISCAL DIVISION

Lt. Col. Reginald R. Quarton, MSC
Chief (26-6557)

Major Richard M. Stacey, MSC
Asst Chief (26-6557)

PERSONNEL DIVISION

Lt. Col. Herman A. Walker, MSC
Chief (26-6411)

Major James F. Allen, MSC
Asst Chief (26-6804)

ADMINISTRATIVE DIVISION

Capt. Richard E. Bentley, MSC
Chief (26-6554)

1st Lt. William H. Farham, MSC
Administrative Officer (26-6554)

WOJG Richard G. Lyons, USA
Asst Chief (26-6554)

Lt. Col. Alice M. Gritsavage, ANC
Chief Nurse (26-6318)

MAY 1952

Headquarters
Far East Command
Medical Section
APO 500

ADMINISTRATIVE

Hokkaido Medical Conference Well Attended.	66
New Cold Injury Film Soon in Production.	66
Observer Reports Medical Care in FEC Rivals US Hospitals	66
Joint Operation Blood.	67
Policy Concerning Utilization of Epileptics.	69

HOKKAIDO MEDICAL CONFERENCE WELL ATTENDED

The Hokkaido Medical Conference was held 16 May 1952 in Sapporo, Hokkaido, Japan, under the auspices of the US Army Hospital, Sapporo.

Colonel Charles L. Leedham, MC, Consultant, Internal Medicine, FEC, co-chairman with Lt Colonel Tillman D. Johnson, MC, Chief, Medical Service, US Army Hospital, Sapporo, introduced Capt Andrew E. Cyrus, US Army Hospital, Sapporo, who presented a paper entitled "Laboratory Diagnosis of the Anemias."

The following papers were also presented and discussed: "Iatrogenic Disease in Soldiers," by Major Henry A. Segal, MC, Chief, NP Service, Tokyo Army Hospital; "Intrapulmonary Hematoma Following Simple Rib Fracture," by Colonel John M. Salyer, MC, Chief, Surgical Service, 382d General Hospital; "Dermatology Problems in Dispensary Practice," by Colonel Franklin H. Grauer, MC, Consultant in Dermatology, FEC; "Roentgen Diagnosis of Paraduodenal Hernia," by Major David D. Krupp, MC, Chief, X-Ray Service,

US Army Hospital, Sapporo; and "Complications of Antibiotic Therapy," by Lt Colonel Carroll S. Svare, MC, Chief, Medical Service, US Army Hospital, Sendai.

After a lunch in the Grand Hotel ballroom, the day-long conference was concluded with the following presentations: "Combat Psychiatry at Evacuation Hospital Level," by Major Henry A. Segal, MC; "Atherosclerosis," by 1st Lt Joseph P. Murphy, MC, Medical Service, US Army Hospital, Fukuoka; "Recent Concepts in the Treatment of Pancreatitis," by Colonel John M. Salyer, MC; and "Recent Advances in Dermatologic Therapy," by Colonel Franklin H. Grauer, MC. The day's activities were brought to a close by Brigadier General James P. Cooney, MC, Surgeon, JLCOM, when he discussed various matters of interest to medical officers.

The conference was well attended by members of the Army Medical Service and the audience included seventeen local Japanese physicians.

NEW COLD INJURY TRAINING FILM SOON IN PRODUCTION

The Surgeon General, Department of the Army, recently notified the Chief Surgeon, FEC, that a new training film entitled "Prevention of Cold Injuries" has been scheduled for production. Recommendations for the production of this film was submitted by The Surgeon General as one of the motion picture film and film strip requirements for FY 1953.

This project will be a revision of FB 180, "Trench Foot," and will also cover environmental factors, special sanitary measures, proper utilization of clothing, proper foot care, and personal hygiene to

prevent cold injuries such as trench foot, immersion foot and frostbite. A picture plan, consisting of a written description of the subject and script upon which the writing of the photographic scenario for this motion picture will be based, is in the process of preparation.

Although The Surgeon General's Office has assigned a high production priority to this film it is doubtful that distribution can be effected until late fall or early winter.

OBSERVER REPORTS MEDICAL CARE IN FEC RIVALS US HOSPITALS

Better organization of battle-zone medical installations has been credited with making the Korean conflict the "safest" in our history.

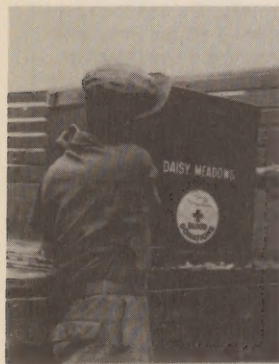
Lt Colonel Kenneth Judy, MC, Assistant Surgical Consultant to The Surgeon General, told newsmen from the Washington Star that medical teams in the field

are so well organized that they can duplicate the treatment a person would receive in the best hospitals in the United States.

Colonel Judy, who recently returned from an inspection tour of medical facilities in the FEC, said that top-flight surgeons are now stationed at forward installations as a matter of routine. Because of this, more crucial surgery can be and is being performed within a short time after a man is injured. "This is particularly helpful," he continued, "in chest, brain and heart injuries where danger of

death increases the longer an operation is delayed." Another factor in reducing mortality below 2% of all hospitalized casualties, stated the Colonel, is the speed with which battle-front casualties are brought to the nearest surgical hospital. He witnessed the admission of 20 casualties to a forward hospital ninety minutes after injury.

"I question," he concluded, "whether any one injured on the streets of Washington would have as much done as soon as in these cases."



JOINT OPERATION BLOOD*

James H. Parker, Lt.(jg), MSC, U.S.N., Armed Services Blood Processing Laboratory, Travis Air Force Base, Calif.

"Thirty boxes, men," shouted Private, first class Travis A. Cowen, USAF, as he rushed into the laboratory to inform laboratory and clerical technicians of the amount of blood being unloaded in the shipping and receiving department of the Armed Services Blood Processing Laboratory. After alerting all

hands concerned, PFC Cowen dashed to his desk to figure out the number of bottles being received: 30 boxes--24 pints per box--720 bottles total. Then he began typing laboratory work sheets as blood samples and inventory sheets from the blood boxes were stacked on his desk. Seven hours later, 720 pint bottles of fresh whole blood were ready to be packed in refrigerated containers and shipped to the Far East Command. During those 7 hours, Army, Navy, and Air Force personnel, in addition to having received, processed, labeled, and stored 720 bottles of group "O" whole blood, had packed and shipped previously processed bottles overseas.

Although the episode cited is only a part of the routine in the Armed Services Blood Processing Laboratory, such a routine did not develop overnight. Many people spent and still spend hours under adverse conditions to make such an operation possible. During World War II, the value of administering whole blood and blood derivatives to the wounded in combat zones and base hospitals was fully realized. Therefore, when the Korean conflict started in the summer of 1950, certain civilian and military medical men who were familiar with the many technical problems involved in collecting, processing, storing, and shipping whole blood were summoned to Washington to formulate plans which ultimately resulted in the establishment of a workable whole blood and blood derivatives program for the Department of Defense.

This group, known as the Whole Blood and Blood Derivatives Committee, was confronted with many urgent problems, the most pressing of which was that of getting fresh whole blood to the Far East Command immediately. Plans were developed and effected rapidly. The American National Red Cross acceded to the request of the Department of Defense to act as the official agency for the co-ordination of procurement of whole blood to meet the requirements of the Armed Forces. In order for the defense forces to handle the whole blood which was to be collected by the Red Cross, it was decided that an Armed Services whole blood laboratory

should be established on a military base where air transportation to the Far East would be available. The Fairfield-Suisun Air Force Base (now Travis Air Force Base) in California was selected because a Military Air Transport Service Command was already located there. Because it would take time to construct or renovate a building to house such a laboratory, and because whole blood was needed in Korea immediately, a temporary laboratory had to be set up and operated until the permanent laboratory was ready for use. The U. S. Naval Hospital at Oakland, Calif., was chosen to house the temporary laboratory.

Personnel, supplies, and equipment were next on the planners' list. Wires began to hum; dispatch orders went out to trained laboratory personnel who were immediately available; commands concerned were notified to render necessary assistance in the establishment of the two blood laboratories; and the supply centers concerned were instructed to handle requisitions from the Armed Services Blood Processing Laboratories as top priority requests. Orders in their hands and wonderment in their minds, selected personnel headed for California. Lieutenant Wayne B. Hewitt, MSC, U.S.N., who had orders to direct the construction of a permanent laboratory within 30 days; Lieutenant Commander (now Commander) Mary T. Sproul, MSC, U.S.N., who had orders to set up and operate a temporary laboratory; Charles E. Walter, HML, U.S.N., James M. Osborne, HM2, U.S.N., and Clarence P. Foreman, Jr., HM2, U.S.N., blood bank technicians, who had orders to report for duty with the Armed Services Blood Processing Laboratory, were all flown from the East Coast and arrived in the bay area on or about 25 August 1950.

Commander Sproul and the 3 blood bank technicians checked in at the U. S. Naval Hospital, Oakland, Calif., and reported to the commanding officer. Captain (now Rear Admiral) S. S. Cook, MC, U.S.N., the Hospital C.O., and Captain J. L. Zundell, MC, U.S.N., the Director of Laboratory Service, rendered all possible assistance in the establishment of the temporary laboratory. The regular laboratory crew moved over and made room for the newcomers. A secretary, Miss Edna Peters, was assigned to the blood laboratory to assist in the paperwork. Commander Sproul and her small crew took advantage of the available space and facilities assigned them and immediately started to work. They procured supplies and equipment, cleaned glassware, and contacted shipping centers concerned. One week after Commander Sproul's arrival at Oakland, over 1,000 pints of group "O" whole blood had been received, processed, and shipped to the Far East from the new

laboratory.

That was only the beginning. Blood poured in from all parts of the United States. The shortage of trained personnel was critical. Each person who arrived for duty aided tremendously. Wayne I. Killion, Sgt., U.S.A., laboratory technician, arrived for duty on 30 August; Alvis E. Hotchkiss, HMC, U.S.N., blood bank technician, and Mrs. Hyman, secretary, arrived on 31 August. Chief Hotchkiss took over the shipping and receiving section of the new set-up and four utility men from the hospital command were assigned to assist him. This gave the technicians more time in which to process the blood. One or two utility men were also assigned to assist the technicians in cleaning glassware. Two more laboratory technicians, John F. Firmani, Sgt., U.S.A., and James W. Humphries, Cpl., U.S.A., reported for duty on 12 September. Thomas D. Nilon, Cpl., U.S.A., general duty, and Paul A. Werner, Sgt., U.S.A., laboratory technician, reported for duty on 14 and 19 September respectively.

Meanwhile, 60 miles away, at the Travis Air Force Base, Lieutenant Hewitt was busy getting the permanent laboratory ready for occupancy. Immediately after his arrival on the West Coast, Lieutenant Hewitt reported to the base commander of Travis Air Force Base, Colonel Joe W. Kelley, USAF, and explained his mission. Immediate action was taken; housing and space for the future laboratory was allocated and construction began at once.

On 1 September, with orders to assist Lieutenant Hewitt and ultimately to assume charge of the permanent laboratory, I arrived at the Travis Air Force Base and found Lieutenant Hewitt in the kitchen of an old abandoned hospital mess hall busily engaged in directing the activities of carpenters, electricians, plumbers, painters, and steamfitters. Things were taking shape. Workbenches were being constructed, light fixtures were being installed, sinks repaired, walls painted, water stills connected, and refrigerators adjusted. But there was still much to be done. More and larger refrigerators were to be installed. Supplies and equipment were requisitioned, and as they arrived, we unpacked them, washed the glassware, and set up the equipment. Personnel had to be obtained. We borrowed a laboratory technician from the station hospital and a working party from the base, and on 22 September, Chief Hotchkiss and Hospital Corpsman Walter arrived from Oakland to help get the new laboratory ready for operation. The new, large refrigerators were in and adjusted. We were ready to receive, process, and ship blood.

One month after his arrival in the bay area, Lieutenant Hewitt was on his way back East. Blood arrived the next day and the following day, 25 September, Commander Sproul and her crew in Oakland loaded their supplies, equipment, and blood on trucks and moved to the new laboratory. The move was made without mishap, and that same day the first shipment of whole blood processed at Travis was sent to the Far East Command.

In the next few weeks work increased. More personnel were requested. We borrowed laboratory technicians from Oakland and Mare Island Naval Hospitals and clerical and general duty men from the Oakland Naval Hospital and Travis Air Force Base. All personnel worked 7 days a week and long hours each day in order to fill the demand for whole blood in the Far East. Instructing inexperienced personnel was generally the cause of the long work-

ing hours, largely because each bottle of blood requires individual attention; and handling each unit quickly and efficiently also requires a technic which is the product of experience. However, in spite of the hardships involved, Army, Navy, and Air Force personnel kept the supply of whole blood flowing toward Korea.

About the middle of October, regular personnel began to report for duty with the Laboratory, and most of the men on loan to us were returned to their commands. As these men were reporting, Commander Sproul was detached and returned to the U. S. Naval Hospital, Oakland, Calif., for duty. With the arrival of new personnel, it was easy to organize a workable shift system. Older and experienced men who had been with the facility since its establishment were divided into two sections; half the new arrivals were placed on one section and half on the other section. Each of the two sections was composed of an equal number of clerical, laboratory, and general duty men. This arrangement made it possible for the men to have regular working hours and permitted them to have a day off each week.

Before the arrival of the new men and before the two-shift system was initiated, it was difficult to receive, process, and ship more than a few hundred units of whole blood a day, but with two shifts, four times as many units could easily be received, processed, and shipped in the same amount of time.

Receiving, processing, and shipping whole blood entails a lot of work. As boxes of blood arrive in the shipping and receiving department of the laboratory, each box is logged in and taken into a large walk-in refrigerator (40° F.) where the pints of whole blood are removed from the shipping containers and placed on the refrigerator shelves. Each bottle contains 500 cc. of whole blood, and a 6 to 8 cc. sample of the bottle's contents is contained in a test tube, attached to the bottle by rubber bands or cellophane tape. Numbers on each bottle, pilot tube (blood sample tube), and inventory list are checked for errors and all discrepancies noted. The pilot tube is removed and sent to a laboratory typist with the inventory list. The empty shipping container is removed from the refrigerator. The ice can is removed from the shipping container, emptied and replaced, and the shipping box properly readdressed to the Red Cross donor center from which it came.

A laboratory typist receives an inventory list with each group of pilot tubes. He transposes whole blood numbers which are listed on the inventory list to a laboratory work sheet and takes them to a waiting laboratory technician who arranges the tubes in numerical order to correspond with the numbers on the work sheet. He then places the tubes in a centrifuge and separates the serum from the red cells. The clear serum is poured into a clean, dry test tube and sent to the proof-typing and anti-A and anti-B agglutinin titer bench; the cells are sent to the Rh factor and blood-grouping bench.

After the serum specimens are inactivated, serum-saline dilutions are made, and each dilution is mixed separately with known, pooled group "A" red blood cells and known, pooled group "B" red blood cells to determine whether or not the serum being tested is actually group "O", and also to determine whether or not the serum being tested contains a high or a low concentration of anti-A and anti-B agglutinins. Results are recorded on an accompany-

ing laboratory work sheet and submitted to the senior laboratory section leader for checking. After the red blood cells have been examined to determine their Rh factor, the results are recorded on an accompanying work sheet and both the cells and work sheet are passed on to a technician at the blood-grouping workbench. There cells are mixed separately with anti-A and anti-B typing serums to verify their blood group. Results are recorded on the laboratory work sheet and the sheet submitted to the senior laboratory section leader for checking.

The senior laboratory section leader compares the titration and proof-typing work sheets with the corresponding numbered Rh and blood-grouping work sheets, and if discrepancies are found, proof-typing and blood-grouping tests are repeated on all specimens in which discrepancies are noted. Completed laboratory work sheets are given to a laboratory typist who transposes the information to numbered, whole-blood bottle labels. The work sheets and the labels containing bottle numbers, blood group, Rh factor, and expiration date are sent to the shipping and receiving crew who in turn place the labels on bottles of whole blood which have the corresponding numbers. In addition to the regular bottle label, a high titer label is placed on each bottle of blood which is found to have a high concentration of anti-A and anti-B agglutinins. After bottles are labeled, they are allowed to set for from 8 to 12 hours so that their contents can be examined for hemolysis or chylousness.

Usually, while technicians in the laboratory are processing whole blood, the shipping and receiving crew is busy packing whole blood in shipping containers which will be shipped overseas before the day ends. Precooled shipping containers are taken inside a refrigerator (40° F.) which contains units of processed whole blood; 16 or 24 pints of blood

are packed in each shipping container, depending on the capacity of the container being used. Into each shipping container, filled with blood units, is placed a can filled with sized, wet ice; a recipient set for each pint of blood; a postal card for each blood unit which requests that certain information be recorded when the blood is given to a patient and returned to the Laboratory; and an inventory list of blood units contained therein. Each shipping container is then closed and strapped with metal strapping. An address card and an instruction sheet containing information concerning handling, icing time, and the re-icing schedule are pasted on the outside of each container. After all shipping containers have been packed, iced, strapped, and labeled they are taken to a plane, loaded on board and transported to the Far East Command. With an experienced office and shipping crew, 21 precooled whole-blood shipping containers (24-pint capacity each) can be packed as described and placed on a plane within 90 minutes.

This is the only Armed Services Blood Processing Laboratory in the United States. Until recently, our mission was to receive whole blood from the Red Cross, process it, and ship it to the Far East Command for their use. Our mission has expanded in that we are now training personnel for the future. If and when it becomes necessary to establish another such laboratory, trained personnel will be immediately available from each of the three services. In the meantime, this facility will continue to receive, process, and ship whole blood to the Far East Command as long as our troops are engaged in conflict there and as long as the American people continue to donate their blood for those troops.

*REPRINTED from Medical Technicians Bulletin

POLICY CONCERNING UTILIZATION OF EPILEPTICS

It is stated in the Physical Standards for induction that proxysmal convulsive disorders controlled by medication are acceptable for induction into the armed forces. This is a reversal of previous policy which held that epileptics should be separated from the service as soon as identified, whether or not controlled by medication. Concomitant with the policy of inducing this group of citizens, a policy of their retention, treatment, and utilization must be enunciated and implemented.

Utilization of the epileptic requires that he be properly identified, profiled, assigned, limited in certain types of duties, medically treated and accepted by both line and medical officers in their separate zones of responsibility for the utilization of manpower.

The identification of the epileptic is dependent upon diagnosis. The profiling of epileptics should be done under "P" and generally should be either P-2 or P-4. The criteria for profile are difficult because, unlike most other conditions, the individual is fit for full duty except for short periods when he is completely disabled. Therefore, the profile must measure the degree to which the convulsive seizures are controlled in frequency by medication. This calls for clinical judgment and, like all clinical judgment, is an informal estimate and not a guarantee. It is believed that it would be reasonable to award a profile of P-2 if it is estimated that most

likely the patient will not have a convulsion during the ensuing year. Such an estimation can be arrived at reasonably by history that on medication the seizures have been more than a year apart in frequency. Conversely, reliable history or demonstration of frequent seizures while on medication would indicate that the epileptic is not controlled by medication but a profile of P-4 should be accomplished and the patient evacuated.

A statement of limitation of duty assignment should be entered on the profile form. Generally, the limitation should consist of no combat, prohibition of such duties as driving vehicles, working at dangerous heights or with demolitions.

Standard treatment of epileptics consists of continuous day in, day out, year in, year out, medication with such drugs as dilantin and phenobarbital. A standard dosage is 0.1 Gm dilantin and 0.032 Gm phenobarbital three or four times a day. Considerable variation of this dosage, particularly with the addition of phenobarbital in the evening, is common. The unit surgeon may be required to make readjustment of dosage. It is not contemplated that those epileptics requiring the use of the more dangerous and less available drugs such as mesantoin or tridione will be regarded as controlled by medication because it is impracticable properly to follow patients on such drugs. Because of prevailing attitudes unfavorable to the utilization of the epileptic, it is incumbent

upon the members of the medical service to familiarize themselves with the nature of epilepsy. Known epileptics retained in the Far East Command will be reported by name, rank, service number, and, in case of convulsive seizures, the circumstances surrounding the seizure, i.e., whether or not on medication, time of day, place, and activity at the time of seizure. Report will be made to the Consultants Division, Medical Section, Headquarters, Far East Command, APO 500, where a central file of known

epileptics is maintained.

References:

1. Para 76f, AR 40-115, Physical Standards for Induction, 20 Aug 1946.
2. Sec III, Mental and Physical Standards, 11-B - Army Progress Report, Health of the Army, Sep 1951.
3. "Comments on Epilepsy, Grand Mal," Surgeon's Circular, GHQ, FEC. Oct 1951.

TECHNICAL

Migraine.	70
An Interesting Case of Myocardial Infarction.	74
Combat Psychiatry at Evacuation Hospital Level.	77

MIGRAINE*

Colonel Ryle A. Radke, MC, Chief, Medical Service, Tokyo Army Hospital

MIGRAINE is a generalized neuro-vascular disorder of unknown etiology which gives rise to periodic seizures of pain about the arteries of the head and to peripheral vascular phenomena such as numbness, tingling and other paresthesia and to abdominal pain, nausea and vomiting. In most instances the pain is preceded by an aura.

The disease has been known since the earliest medical writings. The neuro-vascular basis of the seizures was first suggested by DuBois-Raymond¹ in 1860. Parry² in 1789 found that the pain could be relieved by obliteration of the vessel involved or by pressure on the external carotid on the painful side. Graham and Wolff³ have shown that the painful stimulus in migraine comes from an abnormally pulsating vessel and that the vessel gets edematous as the attack progresses. Eulenberg⁴ (1883) reported upon the effectiveness of purified ergot in the therapy of migraine. Lennox⁵ and Von Storch⁶ and also Wolff⁷ have shown that ergotamine tartrate is effective in most attacks of the disease.

The military significance of migraine is difficult to assess. In the first place, the physical standard regulation states that the disease is disqualifying if moderate or worse. Many of the sufferers from this disease have not been inducted. Wolff⁷ states eight percent of 10,000 selectees complained of frequent severe headaches. It has been estimated that there are from two to six million people with this disease in our country and that half of them start having their seizures during the 20 to 30 decade. The disease, then, is the cause of an appreciable number of people not being inducted into the service. Those who do not get disqualified are difficult problems to diagnose and treat in the military establishment.

The major significance of the disease from the military standpoint is that it must be recognized and treated on an out-patient status and, also, a real-

istic attitude must be taken with respect to the fact that the disease is treatable and under no circumstances is it cause for rejection from the military service or for separation when uncomplicated.

In discussing the etiology of this condition, factors leading up to an attack in the schematic form should be presented. The schema of Lennox (Fig 1) has likened the individual's ability to resist seizure to a reservoir into which the various etiologic factors feed water as from an underground spring - when the reservoir is filled above the threshold for seizure a headache results.

Inquiry has been made into the various etiologic factors in this disease and the data presented at this time.

Fig 2 shows that there is an inherited factor in migraine which I have studied in the family group shown along with the occurrence of arteriosclerotic disturbances. You will see from the illustration that the disease occurred in six generations of the family studied and that the marriage of two migrainous individuals appeared to increase the incidence of the disease in one branch of the family. The occurrence of systolic hypertension, vascular accidents and angina is significantly increased in this family group.

The related vascular complaints found as the result of a study of 50 unselected asthmatics from my military practice, ranging in age from 6 to 68 years, are shown in Fig 3. There was periodic throbbing headache in 60% of them and the occurrence of peripheral vascular phenomena such as Raynaud's syndrome in 44%. Arteriosclerosis was defined as perceptible increase in the thickening of the vessel wall and tortuosity, or absence of pulsation of the posterior tibial arteries, or the presence of AV nicks and tortuosity of retinal vessels and was present in 80% of these patients. This study of asthmatics is described at this time to emphasize that other vascul-

*This paper was read at the Hokkaido Medical Conference, Sapporo, Hokkaido, Japan, 15 February 1952.

ar phenomena are present in the asthmatic individual and, also, to show that vascular headache is frequently a part of that disease.

The result of a study of 35 migrainous individuals ranging in age from 20 to 52 years, conducted in the same manner is shown in Fig 4. It will be seen that 82% had an aura preceding their attacks, 80% had arteriosclerosis, and 60% had physical findings of retinal vasospasm, while 40% exhibited the phenomenon of pulsatile segment of the retinal arteries, 29% had systolic hypertension, while 20% had angina. Both of these latter phenomena are usually considered to be manifestations of arteriosclerosis. Five of the seven whose disease was associated with angina had positive Master's test and one of the others died of myocardial infarction.

Because of the observations which Redish and Pelzer⁸ and Hauptman⁹ made with respect to the occurrence of distinctive capillary nail bed pattern in migrainous people, I have studied the nail bed capillaries in six migrainous persons during attacks and during the period when response to vasoconstrictor drugs was occurring. In each of these people at the time of the attack there were conspicuously fewer loops in the nail beds and many of those present were distorted with one side of the loop much dilated and angular in appearance. This phenomenon I considered to be the same as that reported upon by Redish and Pelzer and Hauptman. In each of the six patients the pattern of capillaries in the nail bed was kept under continual surveillance by means of a mechanical finger holding device during the time that response to vasoconstrictor drugs was occurring. In each instance the pattern remained unchanged until the patient was able to feel a diminution in the force of the headache pulsations, at which time suddenly many additional loops which appeared perfectly normal would spring into view. In two instances the resultant nail bed capillaries had a perfectly normal pattern. In the remaining four the total number of loops remained conspicuously diminished, even though the headache was reported to be absent. In five instances the vasoconstrictor drug employed was dextrodine by mouth; in one instance ergotamine tartrate intravenously. Observations on two of these patients between seizures revealed a perfectly normal nail bed pattern. A similar observation has been made in one additional patient with migraine when no seizure was present. These data suggest to me that the immature nail bed pattern described by Hauptman in migraine is a phenomenon associated with the seizure.

A related phenomenon has been observed in the retinal arterial tree. A drawing to illustrate this phenomenon is shown in Fig 5. In 40% of the migrainous individuals studied a short segment of an artery otherwise normal would be found to be indistinct. Upon careful focusing with the ophthalmoscope the arterial walls are seen to be pulsating at this area. I have observed this same phenomenon in patients with asthma. Recently Fowler and Zeckel¹⁰ have reported observations upon circulation in the conjunctival vessels in patients with Meniere's Disease which appear to be similar in nature to those which I have observed in the retinal vessels of patients with migraine and asthma.

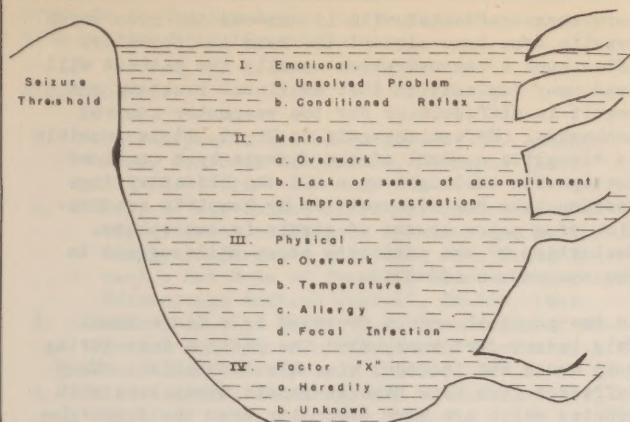
A number of patients with migraine have been managed by me with psychotherapeutic technics alone. In several instances this management has resulted in absence of the headache for long periods. A case report is given: A 37-year old white female was ad-

mitted to the hospital with continuous severe left temporal headache which had started two weeks previously. She had not had migraine until three years prior to her admission, although her mother had suffered from "sick headache" severely. Her physical examination revealed the left temporal artery to be distended and abnormally pulsatile. One of the left retinal arteries had a pulsatile segment which disappeared upon compression of the temporal artery. The remainder of the examination was normal except that she was in severe pain. Her background history was that she had been divorced from her first husband after a traumatic sexual experience and had remarried five years before. She had been unable to make a satisfactory sexual adjustment to her second marriage and this was the source of a great deal of emotional strain. After two years of marriage migraine made its appearance intermittently and finally culminated in "migraine state." Headaches were terminated with dextrodine and aminopyrene and she was discharged to outpatient management. Her difficulty in adjustment to her second marriage was explained to her as a conditioned reflex resulting from the traumatic experience which led to the dissolution of her first marriage. With this explanation and advice regarding sexual technics, she made a satisfactory adjustment to her marriage and has had freedom from migraine for two years with no other treatment. I have upon numerous occasions precipitated migrainous seizures in susceptible patients with a modification of the traumatic interview outlined by Wolf.¹¹

One of the patients whose migraine responded well to superficial psychotherapeutic technics was free of his headaches for a period of six months, only to have them recur when he developed tuberculosis. I think that in this instance the migraine recurred as a result of the stress of the chronic infection. Other patients whom I have had with this disease have had partial freedom from seizures after efforts have been made at teaching them how to live and have then had complete freedom from the seizures after elimination of a focus of infection.

Diagnosis of migraine rests upon the demonstration of headache in a person whose family history has allergic disease in it in 85% of the instances. For the purposes of this report I defined allergic disease as asthma, hay fever or migraine. Eighty-two percent of migrainous individuals are able to describe an aura or premonition of onset of the headache. This varies from mood changes such as euphoria, depression or sense of unreality to scotomata and ophthalmoplegic manifestations. It is generally agreed that the aura is produced during a preliminary vasospastic state of the cerebro-cranial vessels. In 35 migrainous individuals the aura was distributed as shown in Fig 6. In one case I have encountered ophthalmoplegic aura.

After the aura has persisted for a half to three-quarters of an hour, pain about the temporal artery on one or the other side makes its appearance. The headache may be bilateral and in some instances the pain is located over the occipital or the supraorbital artery. In some headaches and in some people with most headaches only small branches of the superficial temporal artery are involved. Pressure upon the artery involved sufficient to obliterate its pulsation will ordinarily reduce the pain unless the headache has been present long enough to result in edema of the vessel, in which instance pressure upon the vessel will result in exquisite local tenderness and very likely the patient will state pres-



FACTORS PRODUCTIVE OF MIGRAINE SEIZURE
(Adapted from Lennox)

Fig 1

ANALYSIS OF RELATED VASCULAR
COMPLAINTS OF 50 UNSELECTED CASES OF ASTHMA

Allergic Family History	80 %
Periodic Throbbing Headache	60 %
Raynaud's Phenomenon and Related	
Peripheral Vascular Symptoms	44 %
Relationship to Exposure to cold	36 %
Angina	14 %
Arteriosclerosis	80 %
Patchy Light Reflex, Retinal Arteries	50 %
Pulsatile Segment of Retinal Artery	36 %

Fig 3

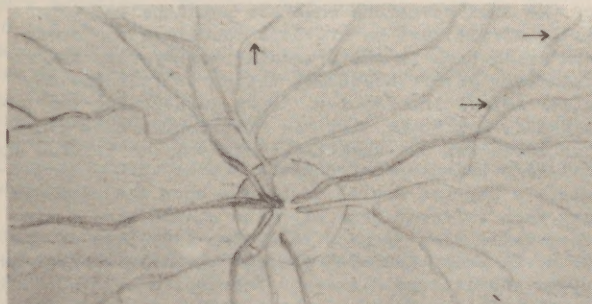


Fig 5

ILLUSTRATING THE TECHNIC OF KEEPING A FOOD DIARY

Date	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19
Bacon	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Eggs	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X	X
Beef	X				X							X							
Pork		X				X			X						X		X	X	X
Ham			X									X					X		
Walters				X				X						X				X	
Lettuce		X					X		X		X					X		X	
Mayonnaise		X					X		X		X							X	
Onions	X				X			X				X		X				X	
Coca-Cola			X			X			X		X			X				X	
Choc. Ice-Cream				X				X		X					X				
Van. Ice-Cream								X						X		X			
Headache		I	X	I		X	I		X		I	X	I		I	X	I	X	

Fig 7

Familial Occurrence of Migraine

- MIGRAINE
- SYSTOLIC HYPERTENSION
- A ANGINA
- V VASCULAR OCCLUSIONS

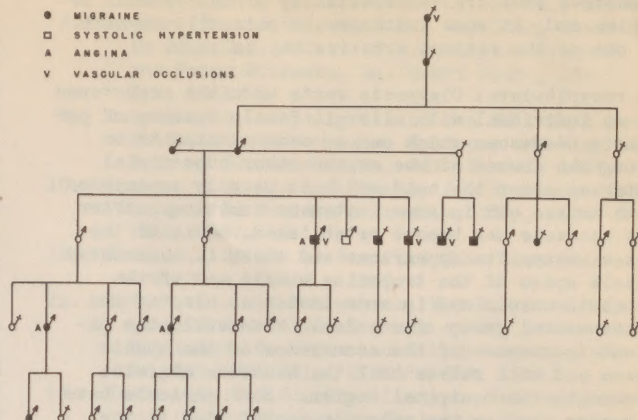


Fig 2

ANALYSIS OF VASCULAR COMPLAINTS AND PHYSICAL
FINDINGS OF 35 UNSELECTED CASES OF MIGRAINE

Allergic family history	85 %
Asthma, hay fever, Raynaud's phenomenon	52 %
Angina	20 %
Systolic hypertension	29 %
Arteriosclerosis	80 %
Patchy light reflex retinal arteries	60 %
Pulsatile segment, retinal arteries	40 %

Fig 4

DISTRIBUTION OF AURA IN 35 PATIENTS WITH MIGRAINE

Visual	40 %
Pain about the head	20 %
Mood changes	11 %
Nasal	5 %
Heat on face, unilaterally	2 %
Gastro intestinal upset	2 %
None	17 %

Fig 6

Fig 1 - Factors Productive of Migraine Seizure
(Adapted from Lennox)

Fig 2 - Familial Occurrence of Migraine

Fig 3 - Analysis of Related Vascular Complaints
of 50 Unselected Cases of Asthma

Fig 4 - Analysis of Vascular Complaints and Physical Findings of 35 Unselected Cases of Migraine

Fig 5 - Pulsatile Segment of Retinal Artery in Migraine (Arrows point to pulsatile segment in drawing)

Fig 6 - Distribution of Aura in 35 Patients with Migraine

Fig 7 - Illustrating the Technic of Keeping a Food Diary

sure makes his pain worse. Associated phenomena sometimes seen are vasospasticity of the retinal arteries and, in some instances, a pulsatile segment of one of the retinal arteries may be seen.

To recapitulate: Diagnosis rests upon the occurrence in an individual with allergic family history of periodic headaches which can be demonstrated to be along the course of one or the other superficial arteries about the head which is usually associated with nausea and in some instances vomiting. After the headache has become established, edema of the vessel makes its appearance and there is associated muscle spasm of the trapezius muscle and of the rhomboid muscle and in some instances also of the lumbo-sacral group of muscles. Frequently the patient is unaware of the occurrence of the muscle spasm and will relate that the headache migrates around to the occipital region. Such patients have a tender area on the superior nuchal line at the attachment of the trapezius muscle.

Treatment of the condition will be discussed under management of the individual attack and of the disease. The individual attack is best managed by vasoconstrictor drugs and the best vasoconstrictor drug to use is the mildest one that will control the patient's seizure. Dexedrine, amphetamine and ephedrine are very effective and the latter two are available in the Army supply catalogue. They should be combined with an analgesic compound for best effect. The best analgesic for the control of vascular pain in my experience has been aminopyrene. This is not a standard item and has been implicated in depression of the myelocytes in sensitive people. I never use it until I have a white count and then prescribe it coupled with the vasoconstrictor drug in a capsule. I give ten capsules and do not refill the prescription until I have checked the white cell and differential count. In case this drug is not available I employ aspirin, phenacetin and caffeine in the capsule with the vasoconstrictor drug. In some instances this combination is not sufficient and it may be necessary to employ ergotamine tartrate in 0.5 mgm doses intramuscularly. I try to avoid this because not infrequently in its employment the patient complains of substernal pain and the drug has been implicated in myocardial infarction and coronary insufficiency.^{12, 13, 14}

Nothing aggravates the pain of migraine quite so much as self-pity and the patient should be urged to continue about his normal duties. Nausea can be controlled by very hot liquid, re-swallowed if necessary.

Management of the disease envisages first establishing in the patient's mind that you know what you are talking about when you point out to him the factors responsible for precipitating his individual seizures. Secondly, by means of a most thorough history and physical examination remove from his mind the thought that there is some life-threatening factor responsible for his seizures. A useful diagnostic maneuver which is also useful therapeutically is to find by means of history the areas in which emotional strain exists in the patient. Then, having taken the blood pressure and with the cuff in place, request the patient with respect to the emotional problem taking the blood pressure at the same time. Often times the diastolic pressure will rise 30 or more millimeters of mercury if your history is correct. I point out to the patient at that point that while he is quite unaware of the strain produced upon his blood vessels by his unsolved problem, nevertheless his rise in blood pres-

sure when confronted with it exceeds the rise which results from immersion of the hand in ice water. After such a demonstration usually the patient will heed your explanation that emotional problems can result in difficulties for the vasomotor control mechanism. Referring again to Fig 1, it is possible to visualize control of the disease by a combined therapeutic onslaught upon all the hidden springs feeding into the reservoir or by complete eradication of a major source of strain in one sphere. Evaluation of the patient's story will suggest to you the course of attack.

In the physical sphere overwork is a large item. This is not just work which the patient does during duty hours but includes also his recreation. Many sufferers from this disease saddle themselves with hobbies which are more demanding upon their energies than the average man's daily workload. Obviously we cannot tell our patients to quit work as a means of control of a minor disease. However, we can urge them to find the easiest way of accomplishing their job, which oftentimes will result in an increase of their efficiency. Thorough exploration of the patient's recreation habits may suggest means of modifying the strain produced by that factor. Exposure to cold winds will often precipitate migraine seizures and if the patient is of the type in which the attacks are precipitated by this means a small amount of time spent in discussing ways and means of minimizing this factor will result in fewer seizures. Most migrainous individuals who have an important degree of allergic sensitivity contributing to their seizures are sensitive to ingested allergens. I have had most success with having them keep a food diary for 21 days. Figure 7 illustrates the method of keeping such a record. You will notice upon analyzing this man's record that on several occasions fresh pork or chocolate ice cream were ingested during the twenty-four hours immediately preceding the seizure. You will also note that on two of the four occasions when his headache was especially severe that he ate both chocolate ice cream and fresh pork in the preceding twenty-four hours. The other severe headaches happen to fall the day after sexual intercourse. Upon questioning the patient it was found that his intercourse upon these two occasions was unsatisfactory due, he stated, to his wife being uncooperative. Focal infection produces a chronic source of strain upon the organism and each sufferer from migraine should have a history taken with respect to hidden infection of the GU or GI tract and with respect to chronic chest or upper respiratory disease. Wherever possible, foci or infection should be eliminated.

The approach to elimination of mental sources of strain in the patient consist in an analysis of his work and his solution to the problems of his work. Taking work home from the office should be forbidden. Oftentimes it will be clear that the patient is overloading himself unnecessarily by indecision or looking backwards after a decision has been made. In other instances recreation will be found to be a prime source of mental overwork. The bridge fiend is a prime example. In some patients the chief source of overwork in this sphere is the lack of a sense of accomplishment. The physician can help here by helping the patient evaluate his accomplishments.

In the emotional sphere one can often accomplish a therapeutic miracle by simply taking the time to listen to a migrainous individual. Listening combined with gentle directive therapy based upon conclusions gained during the listening will often

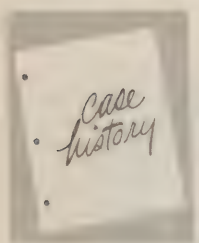
prove to be the touchstone to therapeutic success with an otherwise impossible case.

BIBLIOGRAPHY:

1. DuBois-Raymond, quoted by Moench, L.G., Headache, Yearbook Publishers, Chicago, Ill., 2nd Ed. 1951.
2. Parry, C. H., On the Effect of Compression of the Arteries in Various Diseases and Particularly in Those of the Head, with Hints Toward a New Mode of Treating Nervous Diseases. Edinburgh Medical Journal, 25:366, 1826.
3. Graham, J.R. and Wolff, H.G., Mechanism of Migraine and Action of Ergotamine Tartrate, A. Res W and M Dis Proc., 18:638, 1937.
4. Eulenberg, A., Deutsche. Med Wchnschr. 9:637, 1883.
5. Lennox, W.G., Ergonovine Versus Ergotamine as a Terminator of Migraine Headache, Am. J. Med. Sci., 195:458-468, 1938.
6. VonStorch, T.J.C., The Migraine Syndrome, M. Clin of No. Am., 22:689, 1938.
7. Wolff, H.G., Headache and Other Head Pain, Oxford Univ. Press, New York, 1st Ed., 1948.
8. Redish, W. and Pelzer, R.H., Capillary Studies in Migraine, Effect of Ergotamine Tartrate and Water Diuresis, Am. Heart Jour., 26: 598, 1943.
9. Hauptman, A., Capillaries in the Nail Fold in Patients with Neurosis, Epilepsy and Migraine, Arch of Neur and Psych, 58: 631-642, 1946.
10. Fowler, E.P. Jr. and Zeckel, A., Psychosomatic Aspects of Meniere's Disease, JAMA, 148: 1265, 1952.
11. Wolf, S., Clinic at Stanford Univ Hosp, San Francisco, Calif., 1948.
12. Scherf, D., and Schlachman, M., Electrocardiographic and Clinical Study on the Action of Ergotamine Tartrate and Dihydroergotamy 45, Am. Jour Med Sci., 216:673-679, 1948.
13. VonStorch, T.J.C., Complications Following the Use of Ergotamine Tartrate, Their relation to the Treatment of Migraine Headaches, JAMA, 111:293, 1938.
14. Zimmerman, O., Klin. Wchnschr., 14: 500, 1935.

AN INTERESTING CASE OF MYOCARDIAL INFARCTION

1st Lt Eugene Gersh, MC, US Army Hospital, 8041st Army Unit, APO 250



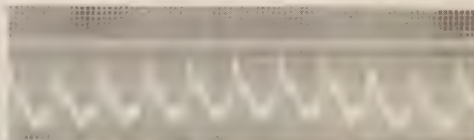
This case is being presented simply because it illustrates many of the complications of a myocardial infarct - ventricular tachycardia, shock, oliguria, congestive heart failure, and gangrene of an extremity.

A 60-year old white male merchant seaman was admitted at 2000 hours on 23 January 1952 complaining of severe burning pain in the substernal area of three hours duration. The pain had come on suddenly and did not radiate. At the onset he had perspired profusely and had been short of breath. The past history was negative for hypertension, diabetes, lues, and rheumatic fever. He had a cough of fifteen years duration productive of small amounts of thick yellow sputum. There was no history of shortness of breath, intermittent claudication, edema or prior chest pain.

Physical examination revealed a well developed, well nourished white male who appeared older than his stated age of 60. He was complaining of severe substernal pain but otherwise did not appear ill. The temperature was 99.2°F., the blood pressure was 132/88, the pulse rate was 100. Examination of the heart revealed regular sinus rhythm. There were no murmurs and a friction rub was not heard. The sounds were of good quality. There were a few dry rales at the left lung base. There was no edema. The fundi were normal. Laboratory work-up including urine analysis, cardioplipin, blood sugar and urea nitrogen were within normal limits. The leukocyte count was 18,400 with a normal differential. The erythrocyte count was 5.2 million and the hemoglobin was 18 grams. The sedimentation rate was 34 mm. per hour.

Shortly after admission an EKG was taken which revealed a posterior wall myocardial infarct. The patient was given one-fourth grain of morphine sulfate and the pain subsided. At 2330 hours, which was 6½ hours after the onset of pain, the pulse rate was noted to be 140 and slightly irregular. At 0130 hours, the rate had risen to 180 and an EKG was taken. (Fig 1a).

Fig 1a
Lead 2
24 Jan
0200'



This showed a ventricular tachycardia with a rate of 195. He was given a test dose of three grains of quinidine sulfate and after two hours, with no reaction, he was started on nine grains of quinidine every two hours. At this time he looked relatively well but shortly afterwards his blood pressure dropped to 70/0 and his skin became cold and clammy. At 0900 hours the following morning the rate was 210 and he was still in shock. Quinidine was continued and when he started to vomit, some of the doses were given by rectum. His tachycardia persisted however. (Figs. 1b, 1c, 1d and 1e) and he remained in shock.

Fig 1b
Lead 2
24 Jan
0900'

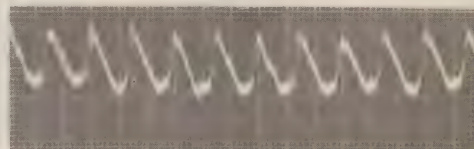


Fig 1c
Lead 2
24 Jan
1100'

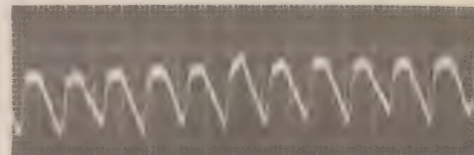


Fig 1d
Lead 2
24 Jan
1300'

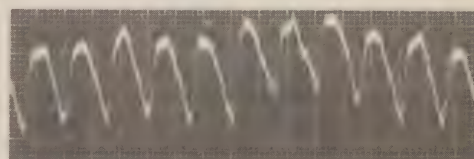
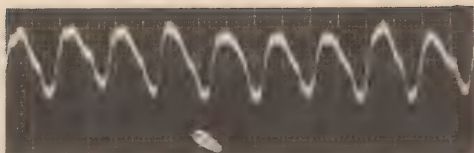
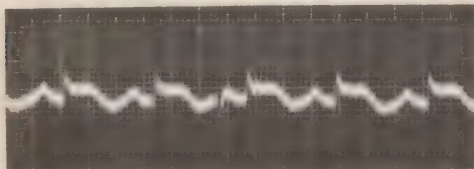


Fig 1e
Lead 2
24 Jan
1500'



At 1540 hours he was given 2cc of 50% magnesium sulfate with no immediate effect. At 1700 hours he reverted to regular sinus rhythm (Fig.1f) and shortly thereafter his blood pressure rose to 100/65.

Fig 1f
Lead 2
24 Jan
1700'



The tachycardia had lasted $17\frac{1}{2}$ hours; the peripheral shock 14 hours. He had received a total dose of 56 grains of quinidine. He was placed on a maintenance dose -- at first 9 grains every 3 hours but this was gradually reduced. EKGs taken throughout that day showed persistence of the regular sinus rhythm.

The following morning, 15 hours after the tachycardia had broken, the patient became dyspneic, orthopneic and moderately cyanotic. There were moist rales at both lung bases. The pulse rate was 84 and regular. His urinary output the previous day had been 60cc. He was treated with oxygen, salt-free and limited fluids. The following day his output had increased to 700cc. and he was less dyspneic. Over the next 3 days the urinary output increased and he was given several injections of a mercurial diuretic. The signs of congestive failure disappeared. The urea nitrogen had remained normal throughout. EKGs taken at this time showed serial changes.

On the 6th day after admission, he suddenly complained of very severe pain in his left lower extremity from about two inches above the knee to the tip of his toes. No temperature or color differences were noted at this time. He was given demerol, papaverine, oxygen, and started on penicillin and intermittent intravenous injections of heparin every 4 hours. A sympathetic block was attempted but was unsuccessful. The following day the extremity was noticeably cooler from just below the knee and a bluish mottling appeared. No pulsations were present in the dorsalis pedis, politeal or femoral arteries. The pulse rate became irregular once again and an EKG showed multiple ventricular premature contractions in runs of 2 and 3 and from different foci. The basic rhythm was an auricular fibrillation. His lung bases were once again filled with moist rales. At this time he was receiving $6\frac{1}{2}$ grains quinidine 4 times daily and this was increased to $6\frac{1}{2}$ grains every 4 hours. Over the next 72 hours the leg became colder, more painful and more discolored and the calf became swollen. His lungs cleared however, and the rhythm became regular. His extremity was then packed in ice to just above the knee and with this most of his pain disappeared.

During the next four weeks his leg was kept in ice and he had relatively little pain. He ran a low grade fever, however, had a poor appetite and ap-

peared to be losing weight. The gangrenous leg remained uninfected. His hemoglobin dropped gradually to 9 grams. The heart remained compensated though and the rhythm remained regular. EKGs taken showed regular sinus rhythm and the serial changes of the infarction. The quinidine was eventually discontinued but heparin and penicillin therapy were maintained. On the 4th of March, 44 days after admission, he was transferred to another hospital for amputation. At this time the leg was well demarcated just below the knee and the distal tips of the toes were black. The gangrene was still dry. The transfer was made by air with the leg packed in ice. There he was given two blood transfusions of 250cc. each and on the 7th of March 1952, three days after admission, the leg was amputated. This was a supra-condylar amputation with primary closure of the stump using refrigeration anesthesia, for 4 hours prior to operation, supplemented with a small amount of pentothal and nitrous oxide/oxygen. The patient withstood the procedure well. The time of the operation was twenty-one minutes. Four days following the operation he was up in a wheelchair feeling well. His temperature was normal and his appetite was good. Since that time he has remained well and has continued to gain weight. The stump, however, is still draining and it will probably have to be revised. The patient was transferred back to the Zone of Interior for further care.

DISCUSSION

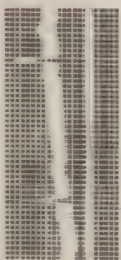
A 60-year old merchant seaman was admitted with an acute posterior wall myocardial infarction. Six and one-half hours after onset he developed a ventricular tachycardia. Ventricular tachycardia occurs in a small percentage of patients with myocardial infarction -- principally in those involving the posterior wall. It usually appears within 24 hours after onset of the occlusion and is less responsive to therapy than ventricular tachycardias of other origin. Quinidine is the drug of choice but good results have also been obtained with pronestyl, a procaine derivative, and occasionally with magnesium sulfate.

The rapid heart rate which occurred caused a lowering of the cardiac output and this resulted in peripheral shock. Once the tachycardia broke the shock disappeared. No therapy was indicated therefore against the shock itself.

During the period of shock, the blood supply to the kidneys was markedly diminished and as a result oliguria and excessive retention of salt and fluids occurred. Congestive heart failure followed. Once the shock was overcome and the blood supply to the kidneys approached normal, excretion of salt and fluids became adequate. Congestive heart failure promptly disappeared.

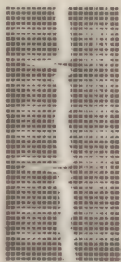
On the 6th day of illness an occlusion of the left femoral artery occurred. This was due to either an embolus from a mural thrombus in the left ventricle or to a thrombosis in situ in the femoral artery. The congestive heart failure and the period of shock would encourage the formation of the latter. Anticoagulants were not used prior to this time because of the presence of a diminished blood supply to the kidneys. The gangrenous leg was refrigerated for slightly over a month without becoming infected. Amputation was delayed until it was felt the patient could undergo this procedure. This was performed 47 days after the myocardial infarct.

Hospital Day 1

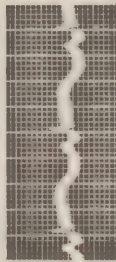
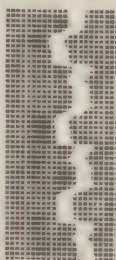


Lead I

Hospital Day 7



Lead II



Lead III



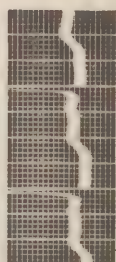
CH 2



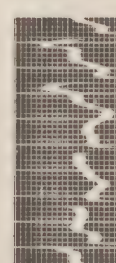
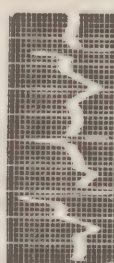
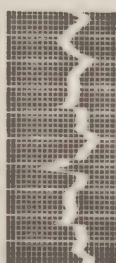
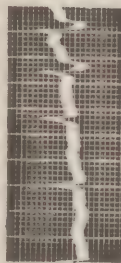
CF 4



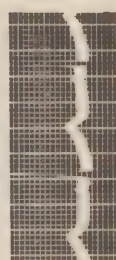
CH 5



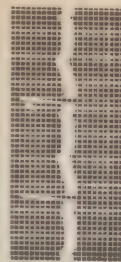
Hospital Day 8



Hospital Day 15



Hospital Day 24



COMBAT PSYCHIATRY AT EVACUATION HOSPITAL LEVEL*

Major Henry A. Segal, MC, Psychiatrist for Tokyo Army Hospital
(Formerly Chief, Neuropsychiatric Service, 121st Evacuation
Hospital, and CO 212th Psychiatric Detachment)

DURING combat periods in which the tactical situation is fluid, the Evacuation Hospital must stand prepared to make frequent moves; its primary function at such periods is to provide emergency treatment and interim therapy, to receive large numbers of casualties from forward medical units, and to expeditiously evacuate large numbers of patients to rearward medical facilities. The Table of Organization for an Evacuation Hospital provides for one psychiatrist and little more in the way of psychiatric personnel. This suffices to afford emergency and interim psychiatric treatment. However, during these periods of combat when the tactical situation is relatively static the Evacuation Hospital provides an ideal site for the treatment of those psychiatric casualties evacuated from combat units. This paper concerns itself with the experiences of the Psychiatric Service of an Evacuation Hospital in Korea between the period July 1951 and January 1952. This hospital was then situated in Yongdong-po near Seoul, Korea, and its geographic location was such as to cause all psychiatric casualties to pass through it as they made their way rearward in the medical chain of evacuation. Ample space was provided for the care of the psychiatric patient and it was felt that a determined effort should be made to accord psychiatric treatment at that advance level and to evacuate only those patients who were overtly psychotic, or, at least, pre-psychotic. In addition, of course, it was necessary to evacuate from Korea foreign speaking UN soldiers as well as neurological cases requiring prolonged treatment or specialized studies (electroencephalograms, ventriculograms, etc.). Such a policy was consistent with the lessons learned in the last war and rapidly relearned in the early days of this conflict - the further a psychiatric casualty is removed from the scene of battle before he is accorded treatment, the less successful is treatment, and the lower the return to duty rate. In fact, it is almost as if a mathematical formula exists which states that the return to duty rate is inversely proportional to the distance the patient is removed from combat.

It soon became evident that we could not accomplish our mission without adequate and trained personnel. In July, of our four corpsmen, only one had previous training or experience as a neuropsychiatric corpsman. Of the three nurses assigned to us at that time, only one had previous psychiatric training. In August the staff was augmented by a well-qualified Psychiatric Social Work Officer. Shortly thereafter, we were joined by a competent Clinical Psychology Technician. In October, a well trained psychiatrist and a general duty medical officer, who, though untrained in psychiatry, demonstrated a desire to learn and an ability to do so rapidly, were added to the staff. Highly skilled corpsmen were sent to us as well as two nurses who had long and thorough training and experience in the highly specialized care of the psychiatric patient. By October, the service was well covered.

It does not suffice merely to have on hand skilled

technicians, nurses, corpsmen and psychiatrists. They must all work together for the same common goal and, most important, they must all employ the same method of approach toward the patient. One of the greatest detriments to psychiatric treatment is a staff which is inconsistent in their approach toward the patient. For example, it is far from helpful for the psychiatrist to adopt a stern, somewhat Spartan approach towards the patient only to have his therapeutic efforts destroyed by an overly solicitous nurse or corpsmen who "babies" the patient. To forestall such eventualities we held staff conferences each morning before ward rounds. These were attended by both the day and the night shift of nurses and corpsmen as well as by the psychiatrists, social worker and psychologist. At these conferences each patient's case was briefly discussed and emphasis was given to the attitude that was to be adopted by all the staff towards him. To a large degree these conferences obviated the possibility of inconsistency in treatment and discouraged the patient from manipulating the environment to suit his neurotic needs. In addition, it afforded the psychiatrist an opportunity to learn a great deal about the patient's behavior on the ward since all of the corpsmen were skilled in observing the behavior of the patient and they recognized the importance of concise and objective reporting.

In addition to the morning conferences, we also held a formal staff lecture twice weekly. This enabled us to add to the skills of the corpsmen in such procedures as cold-wet sheet packs, restraints, preparation of sedation, etc. A group of people cannot function as a smooth running, well integrated team unless each member has an understanding of the work performed by the other members. To aid in our understanding of each other these lectures were devoted largely to discussions of the roles played by the various team members.

In November, arrangements were made with the Office of the ROK Surgeon General to assign a Korean Army Psychiatrist to our service for training. His eagerness to learn served as an inspiration to all of us and to a large measure helped to counter the intellectual stagnation which is so likely to take place amongst doctors in a combat zone.

TREATMENT: We approached psychotherapy from the viewpoint that everything which is done to or for a patient from the moment he enters the hospital until the moment he leaves constitutes his treatment. When dealing with large numbers of patients as we did, the average patient could receive at most thirty to forty minutes a day of psychotherapy at the hands of the psychiatrist. What then of the other twenty-three and one-half hours? In August we began a program which we called "The Patient's Activity Program" and it became an integral part of the patient's treatment. The new patient was introduced to this program on the morning of the day following his admission. At that time all of the new patients were assembled in a group in the Day Room and given an orientation talk by one of the members of the staff. They were told where they were and, most important of all, WHY they were patients. An attempt was made to counter the stigma which surrounded hospitalization, particularly psychiatric hospitalization. A brief statement was made concerning the type of

*This paper was presented at the Hokkaido Medical Conference, Sapporo, Hokkaido, Japan, 16 May 1952.

treatment which they could anticipate receiving and they were told of the importance of cooperating in their treatment. The Patient's Activity Program was discussed and they were informed that all must take part unless specifically excused by the doctor. The theme of this introductory talk may be summarized thus: "You are here because you have been seen by a doctor and diagnosed as having an emotional illness which prevents you from functioning properly. We are here for only one purpose---to help you to get well. We know that you are interested in getting well and we ask only that you cooperate with us."

One of our more athletically inclined corpsmen was assigned to take charge of physical reconditioning. Patients were given two periods of physical reconditioning daily. These periods consisted of about twenty minutes of graduated exercises followed by group sports. Volley ball and baseball were found to be particularly popular and beneficial. In addition, horseshoes and football were available. The only patients excused were those excused by the doctor and they were very few in number. It was most revealing to watch the patient with the "bad back" as he struggled with his exercises. Each movement was sheer torture. Certainly, baseball or volley ball would be out of the question for him. Yet, time and time again, he could not resist the coaxing of the group to "get into the game and try it out just a little bit." Invariably, the patient would make the effort and by the time the game was well under way the bad back was forgotten and he was well on his way to recovery. The passive-aggressive who refused to take part could always be counted upon to come to life when a baseball was carefully thrown to him. For the depressed or seclusive patient, horseshoes provided us with an excellent opportunity to "draw him out" and quite often he graduated to team play.

The reconditioning period was followed by a shower period and the patients were then permitted a brief rest.

In the afternoon we were able to provide a period of occupational therapy. A trained occupational therapist was available and encouraged the patients to take part. Only simple leathercraft, braiding and model-crafts were utilized as it was considered important to have the patients complete their projects before leaving the hospital.

The Red Cross was most helpful and provided our patients with entertainment both on the ward and in the Red Cross Day Room. With the passage of time we learned that it was far better for our patients to be entertained off the ward and we discontinued the policy of having the Red Cross come to the Open Ward Section for entertainment purposes.

Because of the brief duration of hospitalization we did not feel that formal group psychotherapy was practical. However, a modified, brief technique was useful as a form of ventilation therapy. For this purpose we found that group discussions of current events was an excellent way in which to initiate group participation.

There are those who hold that the neuroses of war and the neuroses of civilian life enjoy certain basic differences. Careful study will reveal, however, that the war neuroses exhibit the same characteristics as the other forms of neuroses. We constantly saw in our patients such mechanisms as regression, repression, isolation, dissociation, pro-

jection, introjection and displacement. Each soldier handles his combat induced anxiety according to those psychological patterns with which he has always handled anxiety and he reacts only at such time as his threshold is reached. The war neuroses do hold this feature in common - fear of combat (death) is the predominant and overwhelming emotion. This external force in itself also serves to inhibit counter-measures which the ego may set up against it. Hence, the ego is beleaguered on two sides---from without and from within and it is constantly threatened with dissolution. This accounts for the prevalence of negation, dissociation and amnesia which we saw. The individual whose previous life was not predisposing recovers promptly. These in whom the soil is fertile, nurture the seed and the symptoms become rigid and fixed---they are the chronic neurotics. Grinker and Spiegel excellently sum up their arguments against the supposed differences between war and civilian neuroses. "War neuroses are reactions of individuals ripe to respond in an individual manner to a particularly meaningful stress---every war neurosis is a psychoneurosis since the old, unsolved conflicts of the past are stimulated by stress to assist in production of a neurotic reaction and in its persistence once it is formed."

Our goal was "To Conserve the Fighting Strength" and this certainly did not imply the indiscriminate return of soldiers to duty. We sought to remove those psychologically crippling mechanisms which impaired the soldier's ability to render useful service and which reduced his efficiency. This could not be done without dealing with the patient's complex conscious and unconscious character structure and neurotic patterns. Quite frequently, for example, a demonstration of the link between the here and now situation and the old pattern of behavior was helpful since to a degree it dispelled some of the guilt associated with becoming a neuropsychiatric casualty. The art lies in dealing with the here and now situation without stirring up the old situations beyond a point where they cannot be readily handled.

In many of our cases either practical support or emotional support sufficed to enable the patient to function at a satisfactory level. Environmental manipulation, exhortation, admonition, praise, etc., was carried out by the psychiatric social worker or the clinical psychologist under the supervision of the psychiatrist.

COMBAT EXHAUSTION: The well motivated, rather rigid soldier who suffered from combat exhaustion was frequently difficult to treat. To be sure, he made rapid progress after one or two pentothal interviews but we were then left with a guilt ridden soldier who felt convinced that he "let his buddies down." Frequently, this soldier presented himself in our office and literally begged us to return him to duty even though it was quite evident that he was no longer fit for service on the line. It was found that a firm approach on the part of the psychiatrist was most helpful. The patient was told that the decision of his return to combat duty did not lie with him, but rather with us, and that we absolutely refused to permit him to return no matter how much he coaxed. We attempted to restore some ego strength by recounting his heroic exploits on the line and by informing him that it was essential that he continue to function as a superior soldier---but in a non-combat position. In a sense, the patient was then able to transfer his guilt at not

returning to combat onto us. "After all, I wanted to go back--it was that psychiatrist--he wouldn't let me."

CONVERSION REACTION: During those times when a "big push" was on and we received as many as twenty patients in a day, we found that it was not possible to treat all of our hysterics through the use of intravenous barbiturates. We used strong and vigorous measures instead and with excellent results. Hence, the patient who suffered a conversion reaction which rendered his left leg paralyzed was placed on the Open Ward, told where the mess hall was, and informed that if he wished to eat it would be necessary for him to walk there. He was forced to take an active part in the activities program. Quite frequently, under the pressure of hunger, he would make the initial attempt to walk to the mess hall and after three or four days his symptoms would abate. He would then be given a very brief and admittedly superficial explanation of his condition by the psychiatrist and promptly returned to duty. At first, these measures evoked considerable hostility in the patient but he was then encouraged to utilize his hostility in more helpful ways (i.e., to work harder at the job of getting well).

SOMATIZATION REACTION: As is the case in civilian life, these cases were very difficult to treat. Taking cognizance of this fact, we made no attempt whatsoever to do deep treatment. In each instance we informed the patient of his negative physical and laboratory findings and reviewed his case with him. At no time did we attempt to argue the patient out of his symptoms. We anticipated his reaction to our efforts which usually consisted of, "You guys just think it's all in my head" by telling him in advance that, "Your symptoms are very real and are the results of emotional tension." In treating psychosomatic conditions we are all aware of the importance of having the patient accept the fact that he is not suffering from organic disease, and our firm statement and careful review may to some extent have aided the patient at arriving at this most important conclusion.

THE UNWILLING SOLDIER: As a result of our efforts with this type of problem, we came to feel that in many cases these individuals could be rehabilitated. The task was not an easy one and the burden of the work fell upon the corpsmen. These patients were made to dress neatly, to keep their boots shined, their beds made and to be active in the rehabilitation program. To insure their complete participation we frequently assigned our first sergeant, an old front-line soldier, to the task of supervising these men. Psychotherapy was very direct and aimed at enabling the patient to see for himself how his pattern of immaturity had always served to prevent him from being successful in the past and how it would continue to do so in the future. In these cases where progress was made we attempted to secure transfer to another unit in an effort to break up the "scapegoat mechanism" which was so often at work.

CHARACTER AND BEHAVIOR DISORDERS: The confirmed alcoholic, drug addict, or antisocial personality does not and cannot make a good soldier. His continued presence in a unit constantly threatens the morale of the entire unit. As psychiatrists, we can only recommend expeditious separation from the service and write concise, meaningful recommendations which will not equivocate and which will enable the man's

Commanding Officer to take positive action. Quite frequently we found it helpful to speak to the patient's commanding officer, for occasionally they felt, "A 368 is too good for that guy, I'll keep him around until he really gets into trouble and then we'll have a General Courts-martial." Perhaps the best counterstatement to this is, "And whose taxes will support him while he languishes in the Federal Detention Barracks for five years? There continues to be much misinformation concerning the use of 368 discharge and it behooves us to objectively indicate its needs and uses.

OUT PATIENTS: We saw an average of 120 out-patients a month in our Neuropsychiatric Clinic. A large number of these cases were referred by their commanding officers for psychiatric evaluation under the provisions of AR 615-368, 369, or 443. A number of referrals were for pretrial psychiatric evaluation. Interestingly, in over fifty such cases, we saw only one in whom psychiatric illness was considered to be present at the time of the commission of the crime. A number of our out-patients were referred for evaluation by directive of higher authority. In our series of approximately 100 such cases, two were found to be suffering from any condition which incapacitated them from performing the job to which they were then assigned.

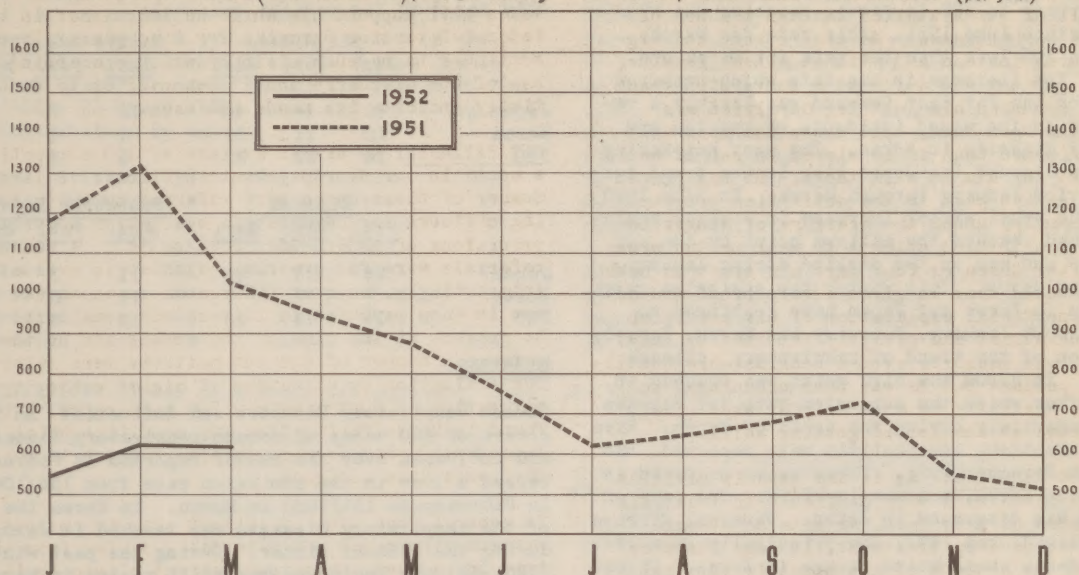
In general, the type of patient seen in our out-patient clinic did not materially differ from the type to be seen in any out-patient clinic be it an Army or a civilian hospital. Occasionally, the situation permitted us to treat certain selected soldiers on an out-patient basis. They were seen two and three times a week and the results were most gratifying.

RESULTS: Careful case records and statistics were maintained on all patients seen by our service during the period under discussion. From 1 August to 31 December 1951, 1299 patients were admitted. Of this number 882 patients were given treatment by us. An average of 87% were returned to some form of duty. As our skill increased and our personnel became better trained, the percentage of patients returned to full military duty increased from 44% to 56%. This return to duty rate is considerably higher than similar figures listed by Evacuation Hospitals during the last war. It is felt that several features were in operation to explain this fact:

1. In a sense this war is "different." The stress of prolonged, repeated, intensive artillery barrages has not been too prevalent.
2. Line officers demonstrated increasing appreciation of the role of the psychiatrist and cooperated wholeheartedly with recommendations made by the psychiatrist. Men no longer fitted for full combat duty were often rotated within the division to a rear area where they were capable of continued service.
3. Our treatment program and our proximity to the "Front" served to minimize secondary gain through illness.
4. In the absence of organic pathology, we did not equate complaints with incapacitation. Hence, the soldier with non-disabling subjective complaints of headache, nausea, nervousness, backache, etc., was returned to duty and required to serve despite the discomfort of his non-incapacitating symptoms.

HEALTH OF ARMY TROOPS, FEC

Admission Rate(all causes), U.S. Army Personnel, Far East Command (per 1000 per year)



Admission rates per 1,000 troops per annum, Army personnel, for the four-week period ending 26 March 1952, were as follows:

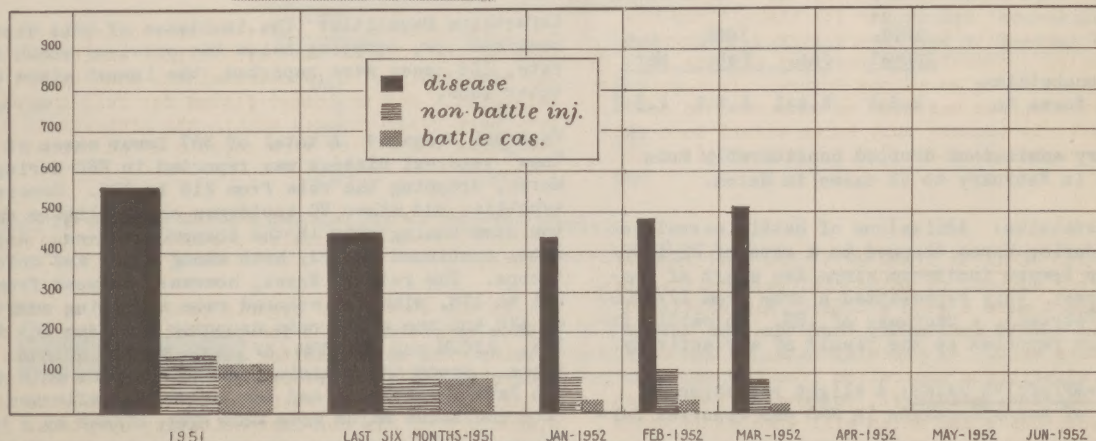
	FEC	JAPAN	KOREA	PHILCOM (AF)	RYCOM
All Causes	607	616	618	290	423
Diseases	508	551	500	238	357
Injuries	85	65	96	52	66
Battle Casualties	14	0	22	0	0
Psychiatric	18	15	20	15	14
Common Respiratory Diseases and Flu	155	174	151	60	87
Primary Atypical Pneumonia	3.7	3.7	3.9	0	.85
Bacillary Dysentery	.29	.12	.28	0	1.7
Amebiasis	.99	1.1	.85	0	2.5
Malaria, new	3	2.5	3.2	15	1.7
Infectious Hepatitis	5	6.3	4.2	0	7.6
Dermatophytosis	3.8	3.6	3.7	0	7.6
Rheumatic Fever	.44	.47	.45	0	0
Venereal Diseases	205	273	175	171	161

DAILY NON-EFFECTIVE RATE

All Causes	20	40	11	33	10
------------	----	----	----	----	----

admission rates

DISEASE, NON-BATTLE INJURY & BATTLE CASUALTY
(per 1000 per year) U.S. ARMY PERSONNEL, FEC



Health of the Far East Command for the month of March 1952 (unless otherwise specified) refers to Army personnel only.

ADMISSION RATES:

Disease: The admission rate for disease rose from 488 in February to 508 in March, reaching the highest point since June 1951. This rate for March, however, is 30% less than the rate for March one year ago. The increase in the rate which occurred in March for the Far East Command was largely a reflection of an increased incidence of measles and respiratory diseases in Korea. The most noteworthy fact in the disease incidence lies in the trend during the period January through March. In both 1950 and 1951 the usual winter increase in disease admission rate had reached the maximum point by the end of the year and was on the decline during January, February and March. This winter the admission rates for disease in Korea and Japan have continued to rise throughout January, February and March, largely a reflection of the trend of respiratory disease incidence. In RYCOM the high point was reached in February after which the admission rate for disease declined moderately during the month of March. Five cases of infectious encephalitis were reported, the first since November 1951. Three cases occurred in Japan, one in Korea, and one in RYCOM. One case of diphtheria was diagnosed in Japan. Venereal disease showed a slight drop (6%), due principally to a reduced incidence among white troops in Korea. Digestive tract infections (dysentery, amebiasis, paratyphoid, food poisoning) dropped during March, again mainly due to decreased incidence in Korea. No epidemics were reported in the command. The incidence of malaria showed a slight rise (10%) as a result of increased incidence in Japan. The rate in Korea was virtually unchanged. Of major note in the disease group during March is the complete absence of any new cases of hemorrhagic fever. Whereas seven cases were diagnosed in February, none were reported this month.

Nonbattle Injuries: Admissions in this category to FEC medical facilities dropped to 85 cases/1000/annum, the lowest rate since August 1950. Partially responsible for this decrease is a gradual reduction of admissions resulting from motor vehicle accidents. While Japan has reported slight monthly increases in nonbattle injury incidence (with motor vehicle cases remaining constant), Korea showed a drop of 26% in nonbattle injury admissions in comparison with the preceding month. In Korea there was a reduction in admissions resulting from motor vehicle accidents (24%). A comparison of the rates in Korea and Japan indicates the following:

	1951	1952		
	Annual	Jan.	Feb.	Mar.
Ratio of nonbattle injuries, Korea to Japan	2.6:1	2.4:1	2.3:1	1.5:1

Cold injury admissions dropped considerably from 292 cases in February to 53 cases in March.

Battle Casualties: Admissions of battle casualties in Korea during March dropped to a rate of 22/1000/annum, the lowest incidence since the start of combat in Korea. This represented a drop from 27/1000/annum in February, a decrease of 18%. No battle injuries were reported as the result of air activity.

DAILY NON-EFFECTIVE RATES: A slight reduction in the total of non-effectives in FEC was reported dur-

ing March with the rate dropping to 20 per 1000 troops per day. The "all causes" rate in Korea was virtually unchanged at 11/1000/day; however, Japan reflected a drop of 10% to 40/1000/day. RYCOM and PHILCOM (AF) rates showed only minor changes. The following indicates the distribution of non-effectives (number of men per 1000 who would not be available for duty for medical reasons):

	All Causes			Battle Casualties		
	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
Japan	51	44	40	12	7	5
Korea	10	11	11	1	1	.6
FEC	24	22	20	5	3	2

	Disease			Nonbattle Injuries		
	Jan.	Feb.	Mar.	Jan.	Feb.	Mar.
Japan	28	26	25	11	3	5
Korea	7	7	7	11	3	5
FEC	14	14	13	10	3	5

DISEASES:

Common Respiratory Diseases and Influenza: An increase of 450 cases of common respiratory diseases and influenza over the number reported in February caused a rise in the admission rate from 138/1000 in February to 155/1000 in March. In Korea the peak of the respiratory diseases was reached in January during the 1950-51 winter. During the past winter (1951-52) the incidence was still rising in March. A somewhat similar situation prevails in Japan where the 1950-51 peak was reached in December and the 1951-52 peak apparently reached in February. The March rate was identical with the February rate and it is still too early to determine whether this is actually the peak of the incidence curve. RYCOM presents an entirely different picture. There, the peak for respiratory diseases occurred during the early fall of 1950 and the incidence did not again rise significantly until January 1952. The incidence of the number of confirmed cases of influenza reported during the past winter was insufficient to raise the question of vaccination against influenza. Such vaccination was done during the 1950-51 winter on U. S. troops in Korea, Okinawa and Japan. There is no indication that influenza will become a problem during this spring.

Psychiatric: Total admissions in this group for FEC dropped slightly as the result of minor decreases in incidence in all commands. The FEC rate dropped from 22 to 18, Japan to 15, and Korea to 20. Of the total FEC cases reported, 10% were psychotic disorders, 36% psychoneurotic, 31% character and behavior disorders, and 23% other psychotic conditions.

Infectious Hepatitis: The incidence of this disease remained low, dropping below the previous month's rate, 136 cases were reported, the lowest since October 1950.

Venereal Disease: A total of 387 fewer cases of "new" venereal disease was reported in FEC during March, dropping the rate from 218 to 205. Gonorrhea, syphilis, and other VD incidence showed little change, the drop coming only in the chancre cases. Japan rates continued upward, both among white and colored troops. The rate in Korea, however, dropped from 204 to 175, with the colored rate remaining constant at 428 and the white rate dropping 19% from 166 to 135. RYCOM and PHILCOM (AF) both showed slight rises. Among the training units in Japan, both the 1st Cavalry Division and the 187th RCT reflected rate decreases which were more than offset by a jump

in the 24th Infantry Division's rate from 363 to 569.

Cold Injuries: It appears that this year's cold injury season has virtually come to a close with only 53 cases being reported, as compared with 265 in January and 292 in February. In March of 1951, 662 cases were reported. A preliminary report of the cases of cold injury admitted to the United States Cold Injury Center in Korea during the period 22 November 1951 - 23 March 1952, shows the following listed distribution by units:

1st Marine Division	10	45th Division	132
1st Cavalry Division	9	I Corps Units	12
2nd Division	21	IX Corps Units	9
3rd Division	114	X Corps Units	2
7th Division	192	8th Army Units	49
24th Division	79	UN Forces (Ethio-	
25th Division	43	pians, Thai-	
40th Division	74	landers, etc.)	104

Epidemic Hemorrhagic Fever: No cases were reported in FEC for the first month since June 1951 when the initial case of epidemic hemorrhagic fever was diagnosed.

DEATHS: Hospital deaths in FEC declined during March, 31 being reported among U. S. Army personnel. Forty-two deaths had been recorded during February. Of the total, 6 deaths (19%) were due to disease; 16 deaths (52%) to nonbattle injuries; and 9 deaths (29%) were the result of battle casualties. In addition, 38 deaths occurring outside of medical facilities were carded for record only; 6 deaths due to disease, 30 to nonbattle injury, and 2 due to battle casualties. One death due to disease was reported by PHILCOM (AF) and 2 deaths (1 disease and 1 nonbattle injury) were carded for record only by RYCOM. Of the total deaths in hospitals, 74% occurred in Korea and 23% in Japan. Of the carded-for-record-only deaths, 76% occurred in Korea and 18% in Japan.

HOSPITALIZATION: (These data cover all patients, Army, Air Force and others).

The bed status as of 26 March 1952 was as follows:

	Designated Beds	Operating Beds	Average Beds Occupied		
			All Patients Army Hospitals	Army Patients	
				USAF Hospitals	Navy Hospitals
JAPAN	13,250	10,930	4,555	202	3
KOREA	4,500	5,193	1,864	7	145
PHILCOM (AF)	100	116	52	11	0
RYCOM	400	344	216	0	0
FEC	18,250	16,583	6,687	220	148

In Korea, there were 13,000 PsW operating beds, 7,757 of which were occupied by PsW and 1,605 occupied by civilian internees:

The percent of designated beds and operating beds in Army Hospitals occupied as of 26 March 1952 was as follows:

	Percent of Designated Beds Occupied	Percent of Operating Beds Occupied
JAPAN	34	42
KOREA	41	36
PHILCOM (AF)	52	45
RYCOM	54	63
FEC	37	40

EVACUATION:

Tabulated below is the number of patients evacuated from the major commands during the four report weeks ending 26 March 1952:

	Evacuated to the Zone of Interior			Other United Nations Personnel Evacuated to Their Homelands
	Army Personnel	Others	Total	
JAPAN	567	35	602	72
PHILCOM (AF)	3	0	3	-
RYCOM	32	19	51	-
FEC	602*	54	656	72

*Including 26 Army patients hospitalized in USAF Hospitals.

on the cover

At the PsW Camp on Koje-do island, just off the southern coast of Korea, PsW get dental treatment from a dental unit of the 64th Field Hospital, 2d Logistical Command, APO 59.

UNCLASSIFIED



The Chief Surgeon extends an invitation to all Far East
Command medical personnel of the U. S. Army, Navy and Air Force,
or of the United Nations, to prepare and forward
with view to publication, articles of professional or
administrative nature. It is assumed that editorial privilege
is granted unless author states otherwise.

Capt. Charles A. Copeland, MSC EDITOR

UNCLASSIFIED